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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/749,354	12/27/2000	Stuart I. Hodge JR.	786-009917-US (PAR)	5467

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425 POST ROAD  
FAIRFIELD, CT 06824

EXAMINER

LAXTON, GARY L

ART UNIT PAPER NUMBER

2838

DATE MAILED: 09/05/2002


Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/749,354

Applicant(s)

HODGE, STUART I. 

Examiner

Gary L. Laxton

Art Unit

2838

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 23 August 2002.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-11 and 13-22 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-11 and 13-22 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 23 August 2002 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____  |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                         | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) <u>4</u> . | 6) <input type="checkbox"/> Other:  |

## DETAILED ACTION

### *Information Disclosure Statement*

1. The information disclosure statement (IDS) submitted on 12/21/00 was considered by the examiner, however, it is noted the applicant duplicated prior art reference Heyden et al (US 5,519,264) twice.

### *Claim Rejections - 35 USC § 102*

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1 and 7 are rejected under 35 U.S.C. 102(b) as being anticipated by admitted prior art reference Katyl et al.

Katyl et al disclose an active power factor correction circuit and an inrush current control circuit driven by the same controller; see figures 2 and 3c (27 and 70) and Col. 4 lines 53-55. Furthermore, the inrush circuit comprises at least one passive device.

### *Claim Rejections - 35 USC § 103*

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 2-6 are rejected under 35 U.S.C. 103(a) as being unpatentable over admitted prior art reference Katyl et al.

**Claim 2:**

Katyl et al discloses the claimed invention with regard to claim 1 as stated above except for wherein the inrush current control circuit comprises an IGBT.

Katyl et al teach using a MOSFET. It is well known in the art and certainly not beyond the skill of those ordinarily skilled in the art to substitute one switching device with or for another switching device in order to enhance switching efficiency of the circuit or to reduce switching losses given the characteristics of different switches. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to utilize an IGBT in place of the MOSFET of Katyl et al in order to reduce switching losses.

**Claim 3:**

Katyl et al discloses the claimed invention with regard to claim 1 as stated above except for using a UC3854 controller. It's well known that those skilled in the art choose appropriate controllers to perform specified functions and it would not have been beyond those ordinarily skilled in the art to choose a UC3854 controller. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to choose a UC3854 controller in order to carry out the functions and operations of the circuit of Katyl et al in order to produce a regulated power supply with power factor correction and inrush current protection.

**Claims 4-6:**

However, Katyl et al do not disclose the different types of driver circuits as claimed.

Driver circuits with charge pumps, power amps, or high voltage integrated circuits, etc. are well known and obvious substitutes. See previously cited reference Inn et al for support for the driver circuits.

6. Claims 8-11 and 13-22 are rejected under 35 U.S.C. 103(a) as being unpatentable over admitted prior art reference Katyl et al in combination with Bernstein et al.

Katyl et al disclose an active power factor correction circuit and an inrush current control circuit driven by the same controller; see figure 2.

However, Katyl et al do not disclose actively controlling the inrush current by shunting current around a passive device and through an active device.

Bernstein et al teach the benefits of actively controlling inrush current by shunting current around a passive device and through an active device by utilizing an IGBT to actively control the inrush current. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to utilize the apparatus of Bernstein et al for controlling inrush current in the circuit of Katyl et al in order to keep a temperature sensitive thermistor in a cold

state in order to maintain high resistance to effectively and efficiently control inrush current. Furthermore, Bernstein teaches charging a capacitor 22. Furthermore, Bernstein et al disclose a drive circuit. Still further, utilizing over-current protection is highly desired and is an obvious benefit to any switching power supply.

However, Katyl et al in combination with Bernstein et al do not disclose the different types of driver circuits as claimed.

Driver circuits with charge pumps, power amps, or high voltage integrated circuits are well known and obvious substitutes. See previously cited reference Inn et al for support for the driver circuits.

### ***Response to Arguments***

7. Applicant's arguments filed 8/23/02 have been fully considered but they are not persuasive. With regard to applicants contention that prior art does not disclose a power supply that utilizes a single controller for power factor correction and inrush current suppression the Examiner refers applicant to Col. 4 lines 53-55 and figures 2 and 3c of US 5,930,130 Katyl et al where it is plainly shown (figure 2) that there is one controller (14) that comprises "Existing signals within the PFC (14) are used to control the switching of MOSFET 31" which is contained in the Filter and Inrush Suppression circuit (27 and 70). Therefore, the rejections stand.

### ***Conclusion***

8. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the

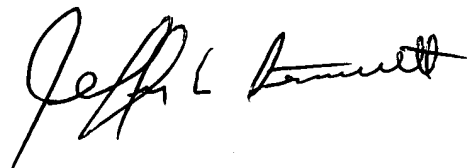
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shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Gary L. Laxton whose telephone number is (703) 305-7039. The examiner can normally be reached on 5-4-9.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robert Nappi can be reached on (703) 308-3370. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9318 for regular communications and (703) 872-9319 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0956.



**Jeffrey Sterrett**  
Primary Examiner

GLL  
September 4, 2002